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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,213	07/18/2003	Carlos Duarte	50228/MEG/F314	4675

23363 7590 09/08/2005

CHRISTIE, PARKER & HALE, LLP
PO BOX 7068
PASADENA, CA 91109-7068

EXAMINER

HUYNH, KHOA D

ART UNIT	PAPER NUMBER
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3751

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/622,213

Applicant(s)

DUARTE ET AL.

Examiner

Khoa D. Huynh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 3, 4 and 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 6 and 8-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2 and 9, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kyle (6105529).

Regarding claim 1, the Kyle reference discloses a hinge assembly for coupling a cover (8). The hinge assembly (Figs. 2A,2B,3A,3B) includes a mounting bracket (about 13) disposed near the top of the assembly 2, a support arm (about 20) pivotally coupled to the mounting bracket via a elements 18,14) about an axis of rotation (at 29) and attached on the outside surface of the assembly, and spring member (about 18,14) disposed between the mounting bracket and the support arm (about 20). As schematically shown in Figure 3A, the spring member forms an angle with respect to the top of the assembly when the cover is in the fully open position. Even though the Kyle reference does not specifically disclose that the spring member forms an angle of less than approximately 45 degrees, it would have been obvious to one of ordinary skill in the art to at the time the invention was made to recognize that the angle (formed by element 14 and the top of the assembly) is of less than approximately 45 degrees. The Kyle reference also shows that the support arm is fixedly attached

to the cover (about 21) to prevent relative rotational movement between the support arm and the cover.

All functional implication and statements of intended use have been fully considered. They, however, are deemed not to impose any structural limitations distinguishable over the Kyle reference which is capable of being used for actuating a spa cover of a spa.

Regarding claim 2, the Kyle reference also DIFFERS in that it does not specifically disclose that the spring member forms an angle of between approximately 10 degrees and approximately 20 degrees as claimed. It would have been obvious to one of ordinary skill in the art to at the time the invention was made to employ such angle degrees for the spring member since discovering an optimum range for degrees of angle involve only routine skill in the art especially since the spring member (as shown in Figure 3A) of Kyle appears to form an angle of between approximately 10 degrees and approximately 20 degrees.

Regarding claim 9, the hinge assembly also includes an attachment located (at 16,38,39) between the spring member and the support arm that can be adjusted.

3. Claims 1, 2, 5, 6, 8, 9, 14, 16, 17, 24 and 25, are rejected under 35 U.S.C. 103(a) as being unpatentable over Fettes (5950252).

Regarding claim 1, the Fettes reference discloses a spa (10) having a spa cover (16). The spa cover is attached to a hinge assembly (Figs. 15 & 16). The

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hinge assembly includes a mounting bracket (202) disposed near the top of the spa, a support arm (22) pivotally coupled to the mounting bracket about an axis of rotation (at 29) and attached on the outside surface of the spa cover (Fig. 1, constructed and operates in the same manner as depicted in Figs. 15 & 16, shows element 22 attached to the outer surface of the spa), and spring member (32) disposed between the mounting bracket and the support arm. As schematically shown in Figure 15, the support arm (shown in dotted line in closed positioned) is "fixedly attached" to the spa cover to prevent relative rotational movement between the support arm and the spa cover. Also, as schematically shown in Figure 15, the spring member forms an angle with respect to the top of the spa when the spa cover is in the fully open position (when the support arm is in the vertical position as shown in Fig. 15). Even though the Fettes reference does not specifically disclose that the spring member forms an angle of less than approximately 45 degrees, it would have been obvious to one of ordinary skill in the art to at the time the invention was made to employ such angle degrees for the spring member since discovering an optimum value for degrees of angle involve only routine skill in the art especially since the spring member (as shown in Figure 15) of Fettes does form an angle of less than approximately 45 degrees.

Regarding claim 2, the Fettes reference also DIFFERS in that it does not specifically disclose that the spring member forms an angle of between approximately 10 degrees and approximately 20 degrees as claimed. It would

have been obvious to one of ordinary skill in the art to at the time the invention was made to employ such angle degrees for the spring member since discovering an optimum range for degrees of angle involve only routine skill in the art especially since the spring member (as shown in Figure 15) of Fettes appears to form an angle of between approximately 10 degrees and approximately 20 degrees.

Regarding claim 5, the support arm further includes an elongate member (at 24) attached along a side of the spa cover, a short member (at 25) which is pivotally coupled to the mounting bracket and a connecting member (the bent portion) between the elongate member and the short member, wherein the connecting member has a curvature (Fig. 15).

Regarding claim 6, as illustrated in Figure 15, the mounting bracket is mounted on a support bracket (at 206) that is attached to the side of the spa.

Regarding claim 8, the Fettes reference also DIFFERS in that it does not specifically include a gas spring as claimed. It, however, would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the Fettes hinge assembly by employing a gas spring. Such modification would be considered a preferred choice of a biasing mechanism on the basis of its suitability especially since the use of either a spring or a gas spring for the hinge assembly of a spa cover lifting mechanism is relatively known in the art (see cited reference).

Regarding claim 9, the hinge assembly also includes an attachment located (at 38) between the spring member and the support arm that can be adjusted.

Claim 14 recites limitations that are substantially similar to claim 1 which has been rejected as discussed supra.

Regarding claims 16 and 17, as best understood, the spa cover will be raised to an upright position and then completely moved downward behind the spa as schematically shown in Figure 2.

Regarding claims 24 and 25, as schematically shown in Figure 15, the spring member is adapted to be inclined upward in a direction toward the rear end of the spa from an end (at 30) coupled to the mounting bracket to another end (at 48) coupled to the support arm.

4. Claims 10-12, 15, 18, 20-23 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fettes (as discussed above) in view of Brady (6795984).

Regarding claim 10, the Fettes reference DIFFERS in that it does not specifically include a metal plate as claimed. Attention, however, is directed to the Brady reference which discloses another hinge assembly for a spa cover having a support arm (1,9) attached to the spa cover (15) via a metal plate (5). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the Fettes hinge assembly by employing a metal plate in view of the teaching of Brady. Such modification would be considered a substitution of one functionally equivalent spa cover

connecting mechanism for another within the spa cover lifting mechanism art that would work equally well on the Fettes device.

Regarding claims 11 and 12, the Brady reference also discloses that the metal plate is affixed to the spa cover using adhesive i.e. double sided tape and/or other conventional techniques such as bolting (with bolt or screw) through the hole formed on the plate (as schematically shown in Figure 1), wherein the adhesive is inherently provided sealing to the cover.

Claim 15 recites the limitations that are substantially similar to claims 11 and 12 which have been rejected as discussed supra.

Regarding claims 18, 20-23 and 26, the method as claimed would be inherent during the normal use and operation of the modified Fettes device.

5. Claim 1, 2, 5-8 and 10-26, is rejected under 35 U.S.C. 103(a) as being unpatentable over Perry (2002/0050003) in view of Brady (6795984) and Powell et al. (5692864).

Regarding claim 1, the Perry reference discloses a spa (10) having a spa cover (16). The spa cover is attached to a hinge assembly (Figs. 3 & 4). The hinge assembly includes a mounting bracket (at 122,140) disposed near the top of the spa, a support arm (at 102,112) pivotally coupled to the mounting bracket about an axis of rotation and attached on the outside surface of the spa cover (Fig. 3), and spring member (at 48) disposed between the mounting bracket and the support arm. As schematically shown in Figure 4, the spring member forms an angle with respect to the top of the spa when the spa cover is in the fully open

position. Even though the Perry reference does not specifically disclose that the spring member forms an angle of less than approximately 45 degrees, it would have been obvious to one of ordinary skill in the art to at the time the invention was made to have modified the Perry hinge assembly by employing a mounting configuration (as evidence by Fettes mounting configurations shown in Figure 13 & 14) so that the spring member forms an angle of less than approximately 45 degrees since discovering an optimum value for degrees of an angle on the basis of its mounting configuration involve only routine skill in the art.

Regarding claim 2, the Perry reference also DIFFERS in that it does not specifically disclose that the spring member forms an angle of between approximately 10 degrees and approximately 20 degrees as claimed. It would have been obvious to one of ordinary skill in the art to at the time the invention was made to employ such angle degrees for the spring member since discovering an optimum range for degrees of angle involve only routine skill in the art (as evidence in Figure 15 of Fettes).

Regarding claim 5, the support arm further includes an elongate member (at 112,102,118) attached along a side of the spa cover, a short member (the portion where element 123 is received) which is pivotally coupled to the mounting bracket and a connecting member (the bent portion of element 118) between the elongate member and the short member, wherein the connecting member has a curvature (Fig. 2).

Regarding claim 6, as illustrated in Figure 2, the mounting bracket is mounted on a support bracket (at 146) that is attached to the side of the spa.

Regarding claim 8, spring member comprises a gas spring (48).

Regarding claim 10, the support arm is attached to the spa cover via a metal plate (at 110).

Regarding claim 11, the Perry reference DIFFERS in that it does not specifically disclose that the metal plate including double sided tape as claimed. Attention, however, is directed to the Brady reference which discloses another hinge assembly for a spa cover having a support arm (1,9) attached to the spa cover (15) via a metal plate (5). The Brady reference also discloses that the metal plate is affixed to the spa cover with adhesive, i.e. double sided tape. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the Perry hinge assembly by employing a double sided tape, in view of the teaching of Brady, to temporary attach the metal plate to the spa cover so that the exact position of the metal plate can be adjusted, if so desired, prior to the attachment of the screw is made.

Regarding claim 12, the Perry reference also discloses that the metal plate is affixed to the spa cover using a screw (at 109) inserted through a hole formed thereon. The screw is anchored in the spa cover by rotating the screw.

Regarding claim 13 (as amended), the Perry reference discloses a spa (10) having a spa cover (16). The spa cover is attached to a hinge assembly (Figs. 3 & 4). The hinge assembly includes a mounting bracket (at 122,140)

disposed near the top of the spa, a support arm (at 102,112) pivotally coupled to the mounting bracket about an axis of rotation and attached on the outside surface of the spa cover (Fig. 3), and spring member (at 48) disposed between the mounting bracket and the support arm. As schematically shown in Figure 4, the spring member forms an angle with respect to the top of the spa when the spa cover is in the fully open position. Even though the Perry reference does not specifically disclose that the spring member forms an angle of less than approximately 45 degrees, it would have been obvious to one of ordinary skill in the art to at the time the invention was made to have modified the Perry hinge assembly by employing a mounting configuration so that the spring member forms an angle of less than approximately 45 degrees since discovering an optimum value for degrees of an angle on the basis of its mounting configuration involve only routine skill in the art. The Perry reference also discloses that the support arm is attached to the spa cover via a metal plate (at 110), wherein the metal plate is affixed to the spa cover using a screw (at 109) inserted through a hole formed thereon. The screw is anchored in the spa cover by rotating the screw.

The Perry reference DIFFERS in that it does not specifically disclose that the metal plate including double sided tape as claimed. Attention, however, is directed to the Brady reference which discloses another hinge assembly for a spa cover having a support arm (1,9) attached to the spa cover (15) via a metal plate (5). The Brady reference also discloses that the metal plate is affixed to the

spa cover with adhesive, i.e. double sided tape. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the Perry hinge assembly by employing a double sided tape, in view of the teaching of Brady, to temporary attach the metal plate to the spa cover so that the exact position of the metal plate can be adjusted, if so desired, prior to the attachment of the screw is made.

The Perry reference also DIFFERS in that it does not specifically include a deformable anchor as claimed. Attention, however, is directed to the Powell et al. reference which discloses a fastening mechanism having a screw (at 6) and a deformable anchor (at 4). As schematically shown in Figure 3, the deformable anchor is engaged with the screw and is deformed and embedded into the wall as the screw is rotated. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the Perry hinge assembly by employing a deformable anchor for the screw, in view of the teaching of Powell et al., as a support mechanism so that the screw may provide a stronger anchor securement to retain the metal to the spa cover.

Claim 14 recites limitations that are substantially similar to claim 1 which has been rejected as discussed supra.

Claim 15 recites limitations that are substantially similar to claim 110 which has been rejected as discussed supra.

Regarding claims 16 and 17, as best understood, the spa cover will be raised to an upright position in which the spa cover has not been moved downward behind the spa as schematically shown in Figure 4.

Regarding claims 24 and 25, as schematically shown in Figure 15, the spring member is adapted to be inclined upward in a direction toward the rear end of the spa from an end (at 30) coupled to the mounting bracket to another end (at 48) coupled to the support arm.

Regarding claims 18-23 and 26, the method as claimed would be inherent during the normal use and operation of the modified Perry device.

Response to Amendment

6. Applicant's amendment, filed on 06/17/2005, to the pending claims is insufficient to distinguish the claimed invention from the cited prior art or overcome the rejections as discussed above.

Response to Arguments

7. Applicant's arguments filed on 06/17/2005 with respect to the pending claims have been fully considered. However, such arguments are deemed not persuasive.

Applicant asserts that the Fettes reference does not teach the amended limitation "the support arm is adapted to be fixedly attached to the spa cover to prevent relative rotational movement...". See the Remarks section, page 13. The examiner is respectfully traversed.

As stated above, the Fettes reference teaches a hinge assembly for a spa including a mounting bracket, a support arm pivotally coupled to the mounting bracket

and a spring member. As schematically shown in Figure 15, the support arm (shown in dotted line in closed positioned) is "fixedly attached" to the spa cover to prevent relative rotational movement between the support arm and the spa cover. Thus the Fettes does suggest applicant's invention as claimed.

Also applicant's arguments with respect to the pending and new claims have been considered but are moot in view of the new grounds of rejections 35 U.S.C. 103(a) as being unpatentable over Kyle (6105529) and under 35 U.S.C. 103(a) as being unpatentable over Perry (2002/0050003) in view of Brady (6795984) and Powell et al. (5692864) as discussed supra.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. McCray was cited to show a hinge assembly for a hatch.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

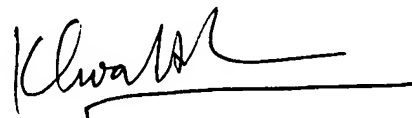
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khoa D. Huynh whose telephone number is (571) 272-4888. The examiner can normally be reached on M-F (7:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Khoa D. Huynh
Primary Examiner
Art Unit 3751

HK
09/06/2005